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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Markus Dillinger

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11/16/2006

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EXAMINER

KARIKARI, KWASI

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/525,995

Applicant(s)

DILLINGER ET AL.

Examiner

Kwasi Karikari

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/27/2006 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 14-26 have been considered but are moot in view of the new ground(s) of rejection.

In response to Applicant's outstanding argument that Tanoue (U.S. 20030002462 A1), Leung (U.S. 6,760,444), Flykt et al. (U.S. 20040029576 A1), Namba (U.S. 6,170,006) and Letsinger (U.S. 20030236991 A1) failed to teach certain limitations in the pending application, the examiner respectfully disagrees with applicant's argument. See below for further clarifications.

In response to applicant's arguments, in claim 14, that Tanoue fails to disclose the claimed limitations "authorizing operation of the terminal device in the radio communication system only upon confirmation that the terminal device will be checked for proper functional integrity during operation," the examiner maintains that Tanoue teaches such claimed limitations (checking/judging of UE for faults during connecting or access sequence; an access or rejection is given according to the detected fault, Pars. [0038-47 0008 and 0010-11]; whereby the access is associated with the "authorization operation" and the checking/judging of fault is associated with the "checked for proper functional integrity during operation").

In response to applicant's arguments, in claim 24, that Tanoue fails to disclose the claimed limitations "receiving the confirmation signal indicating that said terminal device will be checked for proper functional integrity during operation" and "only permitting further operation of said terminal device if said receive device has received the confirmation signal, the examiner maintains that Tanoue teaches such claimed limitations "receiving the confirmation signal indicating that said terminal device will be checked for proper functional integrity during operation" (judge whether UE is faulty or not faulty during connecting sequence, see Pars. [0038-47, 0008 and 0010-11]); and "only permitting further operation of said terminal device if said receive device has received the confirmation signal (access is granted upon judging that UE is not faulty or the UE is normal, but access is rejected otherwise, see Pars. [0038, 0040-47 and 0011].

In response to applicant's arguments, in claim 25, that Tanoue fails to disclose the claimed limitations "receiving a confirmation signal from the confirmation unit of the communication system, indicating that that said terminal device will be checked for proper functional integrity during operation in the communication system," and "only permitting further operation of said terminal device if said receive device has received the confirmation signal", the examiner maintains that Tanoue teaches such claimed limitations " receiving a confirmation signal from the confirmation unit of the communication system, indicating that that said terminal device will be checked for proper functional integrity during operation in the communication system" (judge whether UE is faulty or not faulty during connecting sequence and an access is given accordingly, see Pars. [0038-47 and 0011]); and "only permitting further operation of said terminal device if said receive device has received the confirmation signal (access is granted upon judging that UE is not faulty or the UE is normal, but access is rejected otherwise, see Pars. [0038, 0040-47 and 0011]).

In response to applicant's arguments, in claim 26, that Tanoue fails to disclose the claimed limitations "generating a confirmation signal, from which it can be inferred that the at least one terminal device will be checked for proper functional integrity during operation in the communication system," the examiner maintains that Tanoue teaches such claimed limitations (judging whether UE is faulty or not faulty during connecting sequence and an access is given accordingly, see Pars. [0038-47 and 0011]).

With regards to applicant's arguments for the claimed limitations in claims 15-23, the examiner respectfully maintains that Tanoue's similar cited references, as shown above, are also applicable to such claimed limitation as argued in claims 15-23.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In claim 1, the applicant recites the limitations "said terminal", however, there are insufficient prior antecedent basis for these limitations in the claim. For examination purposes the examiner will treat the "said terminal" as understood from the specification. All claims that depend on the above rejected claims are also rejected for fully incorporating the deficiencies of the above rejected claims from which they depend. Appropriate corrections are required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e))

Claims 14 and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanoue (U.S. 20030002462 A1) (hereinafter Tanoue).

Regarding **claim 14**, Tanoue discloses method for operating a terminal device (mobile device UE) in a radio communication system (CDMA system, see pg. 2, par. 0025 and Figs. 1 and 5), comprising:

Sending a confirmation from a confirmation unit confirming (see Pars. [0033-34]) that the terminal device will be checked (judged) for proper functional integrity (whether UE is faulty or not faulty during connecting sequence, an access is given accordingly, see pg. 4, pars. 0038-47 and pg. 2, par. 0011) during operation and authorizing operation of the terminal device in the radio communication system only upon said terminal have having received said confirmation (see Pars. [0031 and 0046-49]).

Regarding **claim 24**, Tanoue discloses a radio communication system (CDMA system, see pg. 2, par. 0025 and Figs. 1 and 5), comprising:

a confirmation unit (RNC), including a signal generation device generating a confirmation signal (access request message 53); and

a transmit device sending the confirmation signal (see Fig. 5, items 53 and RNC); and a terminal device (UE), including a receive device receiving the confirmation signal (see Fig. 5, items 53 and UE) indicating that said terminal device will be checked (judged) for proper functional integrity during operation (judge whether UE is faulty or not faulty during connecting sequence, see pg. 4, pars. 0038-47 and pg. 2, par. 0011); and

a deactivation unit (RNC) only permitting further operation of said terminal device if said receive device has received the confirmation signal (access is granted upon judging that UE is not faulty, but access is rejected otherwise, see pg. 4, pars. 0038 and 0040-47).

Regarding **claim 25**, Tanoue discloses a terminal device (UE) for a radio communication system (CDMA system, see pg. 2, par. 0025 and Figs. 1 and 5) having a confirmation unit (RNC), comprising:

a receive device (UE) receiving a confirmation signal (53) from the confirmation unit (RNC) of the communication system, indicating that said terminal device will be checked (judged) for proper functional integrity during operation in the communication system (judge whether UE is faulty or not faulty during connecting sequence and an access is given accordingly, see pg. 4, pars. 0038-47 and pg. 2, par. 0011); and

a deactivation device only permitting further operation of said terminal device if said receive device has received the confirmation signal (access is granted upon judging that UE is not faulty or the UE is normal, but access is rejected otherwise, see pg. 4, pars. 0038 and 0040-47 and pg. 2, par. 0011).

Regarding **claim 26**, Tanoue discloses a confirmation unit (RNC) for a radio communication system (CDMA system) having at least one terminal device (UE), comprising:

a device (RNC) generating a confirmation signal (53), from which it can be inferred that the at least one terminal device (UE) will be checked (judged) for proper functional integrity during operation in the communication system (judging whether UE is faulty or not faulty during connecting sequence and an access is given accordingly, see pg. 4, pars. 0038-47 and pg. 2, par. 0011) and

a transmit device (RNC) sending the confirmation signal (53) to the terminal device (UE), (see pg. 4, pars. 0038-47).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 16 are rejected under U.S.C. 103(a) as being unpatentable over Tanoue in view of Leung (U.S. 6,760,444), (hereinafter Leung).

Art Unit: 2617

Regarding **claim 15**, as recited in claim 14, Tanoue discloses the method, wherein said authorizing operation (access) of the terminal device (UE) in the communication system (CDMA system) includes sending a confirmation signal to the terminal device (access response and rejection messages from RNC to UE, see pg. 4, pars. 0040-47).

Tanoue fails to teach, wherein said method further comprises responding to receipt of the confirmation signal.

Leung teaches wherein said method further comprises responding to receipt of the confirmation signal (Home Agent send registration reply and mobile node may authenticate registration reply, see col. 8, lines 4-12 and Fig. 7, step 722).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Leung into the system of Tanoue for the benefit of achieving a system that have centralized databases management that store security-associations for mobile nodes supported by multiple Home Agents as well as perform Mobile IP authentication of the mobile nodes (see col. 4, lines 57-62).

Regarding **claim 16**, as recited in claim 15, Tanoue further discloses the method, further comprising:

sending a request signal from the terminal device (UE) to a confirmation unit (RNC) prior to said authorizing operation of the terminal device in the communication system (UE sends registration and access request to RNC, see pg. 4, pars. 0038-47);
and

initiating checking (judging) of the terminal device (UE) by the confirmation unit (RNC) in response to the request signal, and wherein said sending of the confirmation signal to the terminal device is performed by the confirmation unit (RNC) after said checking (judging UE to find whether UE is faulty or not faulty, see pg. 4, pars. 0038-47).

5. Claim 17 is rejected under U.S.C. 103(a) as being unpatentable over Tanoue in view of Leung and further in view of Flykt et al. (U.S. 20040029576 A1), (hereinafter Flykt).

Regarding **claim 17**, as recited in claim 16, the combination of Tanoue and Leung fail to disclose that the method further comprising: previously storing an address of the confirmation unit in the terminal device and in a large number of terminal and using the address to send confirmation message to the confirmation unit

Flykt teaches that a User Equipment UE sends a registration request to the system; and the request can be a SIP (Session Initiation Protocol) REGISTER message containing the header fields From, To and Contact; whereby the To field indicates the destination address (see pgs. 3-5, pars 0071-74, 0076 and 009 and Fig. 3, B2); i.e., the user equipment uses the destination address to send message network element.

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Flykt into the system of Tanoue and Lueng for the benefit of achieving an authentication system that protects registration information, thereby

ensuring that the critical field in a SIP registration message is not corrupted or manipulated (see par. 0008).

6. Claims 18 and 19 are rejected under U.S.C. 103(a) as being unpatentable over Tanoue in view of Leung and further in view of Flykt and further in view of Namba (U.S. 6,170,006), (hereinafter Namba).

Regarding **claim 18**, as recited in claim 17, the combination of Tanoue, Lueng and Flykt fail to teach that the sending of the request signal by the terminal device only occurs after a predefined period of time has elapsed.

Namba teaches that data copying process (which correspond to "sending of the request signal") does not occur when a response to a notification does not arrive after a lapse of a predetermined time from transmission of the notification of a request for copying permission (which correspond to "registering") (see col. 3, lines 32-41).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Namba into the system of Tanoue, Lueng and Flykt for the benefit of achieving a system where information processing is synchronize with a predetermined time lapse, in order to provide an effective information distribution and authentication system.

Regarding **claim 19**, as recited in claim 18, the combination of Tanoue, Flykt and Namba fail to disclose the method, wherein a plurality of devices are capable of

performing said checking of the terminal device for proper functional integrity during operation and

wherein said method further comprises determining, prior to said checking, which of the devices is performing said checking of the terminal device.

Leung's teachings of servers (i.e., "the plurality of servers") that contain security associations of the mobile node 702 and the determination of which server handles security association (i.e., "determining, prior to said checking, which of the devices is performing said checking") for mobile node 702 (see col. 7, lines 10-50); meets the claimed limitations of "a plurality of devices are capable of performing said checking of the terminal device for proper functional integrity during operation and wherein said method further comprises determining, prior to said checking, which of the devices is performing said checking of the terminal device".

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Leung into the system of Tanoue, Flykt and Namba for the benefit of achieving a system that have centralized databases management that store security-associations for mobile nodes supported by multiple Home Agents as well as perform Mobile IP authentication of the mobile nodes (see col. 4, lines 57-62).

7. Claims 20-23 are rejected under U.S.C. 103(a) as being unpatentable over Tanoue in view of Leung and further in view of Flykt and further in view of Namba and further in view of Letsinger (U.S. 20030236991 A1), (hereinafter Letsinger).

Regarding **claim 20**, as recited in claim 19, the combination of Tanoue, Lueng, Flykt and Namba fail to disclose that said determining of which device is performing said checking includes locating one of the devices in closest possible proximity to the terminal device.

Letsinger teaches that the communication channel 205 is designed so that the authentication device 202 is either physically touching or place in a very close proximity to the communication device 201 (see pg. 3, pars. 0028 and 0029 and Fig. 2, item 203); whereby the device performing the said checking corresponds item 203.

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Letsinger into the system of Tanoue, Lueng, Flykt and Namba for the benefit of achieving a secured communication system where devices are positioned in a close proximity to ensure a successful transfer information and to prevent an interfering signal or spurious signal and further preventing an interception of sensitive device ID (see pg. 3, pars. 0028 and 0032).

Regarding **claim 21**, as recited in claim 20, the combination of Tanoue, Lueng, Flykt and Namba further fail to disclose the method, wherein said checking method further comprises delivering software needed for performing said checking to the terminal device via a wireless interface.

Letsinger further teaches that the controller 306 and the authenticator 307 can be any hardware, firmware and/or software that resides within communication device 301 (which corresponds to the "terminal device"); and device 301 can transmit and receive

data over the network 303 (which corresponds to the “wireless interface”), (see pg. 3, par. 0033 and Fig. 3).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Letsinger into the system of Tanoue, Lueng, Flykt and Namba for the benefit of achieving a secured communication system where devices are positioned in a close proximity to ensure a successful transfer information and to prevent an interfering signal or spurious signal and further preventing an interception of sensitive device ID (see pg. 3, pars. 0028 and 0032).

Regarding **claim 22**, as recited in claim 21, Tanoue further discloses the method, wherein said checking (judging) of the terminal device (UE), includes checking signals to be transferred by the terminal device for compliance with at least one quality criterion (outgoing power transmission, see pgs. 3-4, pars. 0037-38)

The combination of Tanoue, Lueng, Flykt and Namba fail to teach that the quality criterion value dependent on where the terminal device is situated within the radio communication system.

Letsinger, however teaches that a close proximity restriction (which corresponds to the “terminal device is situated within the radio communication system”) guarantees the supply of proper authentication information in the system (see pg. 3, par. 0028); i.e., the authentication information in the system would not be interfered due to the close proximity of devices in the system.

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Letsinger into the system of Tanoue, Lueng, Flykt and Namba for the benefit of achieving a secured communication system where devices are positioned in a close proximity to ensure a successful transfer information and to prevent an interfering signal or spurious signal and further preventing an interception of sensitive device ID (see pg. 3, pars. 0028 and 0032).

Regarding **claim 23**, as recited in claim 22, Tanoue further discloses that the method, further comprising refusing operation (access rejection) of the terminal device (UE) in the communication system (CDMA system) after said authorizing of the terminal device for operation only if said checking of the terminal device has yielded one of a predetermined number of errors and an error exceeding a threshold value (access is rejected after faulty class has reached critical or the outgoing transmission power has reached a certain percentage or more for certain period of time, see pgs. 3-4, pars. 0037-38, 0040-47).

8. ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rockwell (20030027551 A1) discloses a network security architecture for mobile network platform.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8566.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kwasi Karikari
Patent Examiner



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER